NTHMP Seismic Status Report – October 29, 2004

The installation phase of the NTHMP seismic component (formerly called CREST) is essentially complete. There are now 52 of the 53 stations installed. The 1 station that remains to be installed (see UC Berkeley below) is scheduled to be completed in late 2004/early 2005 weather permitting. The inventory of seismic stations is provided below in Table 1. Maps that show the location of sites are available at

Alaska: http://quake.wr.usgs.gov/waveforms/crest/indexc.html

Pacific Northwest: http://quake.wr.usgs.gov/waveforms/crest/indexa.html

Hawaii: http://quake.wr.usgs.gov/waveforms/crest/indexb.html

The project is now in maintenance mode, in which network operators maintain and repair sites as necessary. Malfunctioning stations may stay down for extended periods depending on the accessibility of the site (*i.e.,* snow, impassable roads, *etc*.), staffing limitations, servicing schedules, availability of spare parts, and availability of funds. In other cases the station may be fully operational, but the telecommunications or Internet service provided by 3rd parties may be down. This status report does not attempt to document the outage periods.

- Electronic helicorders on the web: The project continues to provide a near real-time helicorder of the vertical broadband component of every station at http://quake.wr.usgs.gov/waveforms/crest/. The data are updated every 5 minutes. While all stations have 6 channels (3 broadband, 3 acceleration), it is computationally too demanding to generate plots for all of 318 channels. These plots provide a quick means of verifying whether a seismic station is functional, periods of data outages, and the record of earthquakes. The plots are available for the last 7 days.
- The following summarizes the station status by participants.

  Alaska Earthquake Information Center (AK): All sites are installed.

  West Coast/Alaska Tsunami Warning Center (AT): All sites are operational. Satellite telemetry from Sand Point was converted from the USGS hub in Menlo Park, California to a new hub installed at WC/ATWC in Palmer.

  University of California Berkeley (BK): The California Department of Water Resources issued for permits for Alder Springs (GAS) and the site has been installed. Telemetry is scheduled to be installed late 2004.

  USGS Hawaii Volcano Observatory (HV): All sites are operational.

  USGS Northern California Seismic Network (NC): All sites are operational.

  University of Oregon (UO): All sites are operational.

  University of Washington (UW): All sites are operational. RWW (installed in 1999) had to be moved due to construction at the site. The UW moved the equipment to WISH (see table below) on 4/20/2004.
- **Communications**: All network links connecting Golden, Menlo Park, Seattle, Ewa Beach, Fairbanks, and Palmer continue to be functional.
- **Publications**: Submitted final galley proofs to Natural Hazards Special Issue on NTHMP entitled

  "The Seismic Project of the National Tsunami Hazard Mitigation Program"

Table 1. CREST Seismic Stations

Network[1]	#	Location	Station Name	Latitude	Longitude
AK	1	Atka, AK	ATKA	52.20	-174.20
	2	Juneau, AK	BESS	58.30	-134.42
	3	Bremner, AK	BMR	60.97	-144.60
	4	Coldfoot, AK	COLD	67.25	-150.18
	5	Deception Hills, AK	DCPH	59.07	-138.10
	6	Chitina/Divide, AK	DIV	61.13	-145.77
	7	Dot Lake, AK	DOT	63.65	-144.06
	8	Cordova, AK	EYAK	60.55	-145.75
	9	False Pass, AK	FALS	54.86	-163.42
	10	St. Lawrence Isl., AK	GAMB	63.78	-171.70
	11	Nikolski, AK	NIKO	52.94	-168.87
	12	Paxson, AK	PAX	62.97	-145.47
	13	Pinnacle, AK	PIN	60.10	-140.26
	14	Purkeypile, AK	PPLA	62.90	-152.19
	15	Saint Paul Island, AK	SPIA	57.18	-170.25
	16	Seward, AK	SWD	60.10	-149.45
	17	Tin City, AK	TNA	65.56	-167.92
	18	Unalaska, AK	UNV	53.85	-166.50
AT	19	Sand Point, AK	SDPT	55.35	-160.48
	20	Sitka, AK	SIT	57.06	-135.32
	21	Shemya, AK	SMY	52.73	-185.90
BK	22	Alder Springs, CA	GAS	39.65	-122.72
HV	23	Kahuku, HI	KHU	19.25	-155.62
	24	Steam Crack, HI	STC	19.39	-155.13
	25	Uwekahuna Vault, HI	UXL	19.42	-155.29
NC	26	Bosley Butte	KBO	42.21	-124.23
	27	Cahto Pk, CA	KCPB	39.69	-123.58
	28	CapeTown,CA	KCT	41.28	-123.45
	29	Edson Butte, OR	KEB	42.87	-124.33
	30	Hayfork Bally, CA	KHB	40.15	-123.47
	31	Horse Mt, CA	KHMB	40.87	-123.73
	32	Mt. Pierce, CA	KMPB	40.42	-124.12
	33	Mail Ridge, CA	KMR	40.20	-123.71
	34	Red Mt., CA	KRMB	41.52	-123.91
	35	Rodgers, CA	KRP	41.16	-124.02
	36	Camp Six, CA	KSXB	41.83	-123.88
UO	37	Dobson Buttes, OR	DBO	43.12	-123.24
	38	Pine Mt., OR	PIN	43.81	-120.87
	39	Eugene, OR	EUO	44.03	-123.07
US	40	Octopus Mtn, WA	OCWA	47.75	-124.18
UW	41	Wishka, WA	WISH	47.12	-123.77
	42	Green Mt., WA	GNW	47.56	-122.83
	43	Longmire, WA	LON	46.75	-121.81
	44	PNNL - Sequim, WA	SQM	48.08	-123.05
	45	Liberty, WA	LTY	47.26	-120.66
	46	Tahkenitch, OR	TAKO	43.74	-124.08

47	Megler, WA	MEGW	46.27	-123.88
48	Tolt River, WA	TTW	47.69	-121.69
49	Forks, WA	OFR	47.93	-124.39
50	Mt. Hebo, OR	HEBO	45.21	-123.75
51	Port Angeles, WA	OPC	48.10	-123.41
52	Toledo BPA, OR	TOLO	44.62	-123.92
53	Mt Hood Meadows, OR	HOOD	45.32	-121.65

[1] AK = University of Alaska Geophysical Institute Alaska Earthquake Information Center
AT = NOAA/NWS West Coast/Alaska Tsunami Warning Center
BK = University of California Berkeley Seismological Laboratory
HV = USGS Hawaii Volcano Observatory
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